

PATENT
Attorney Docket No.: 50623.00041

AMENDMENTS TO THE CLAIMS:

✓ 1. (Currently amended) A method of coating a medical device, comprising the steps of:

- a) increasing the temperature of the medical device to an application temperature greater than ambient temperature;
- b) applying a coating substance, wherein the coating substance includes a polymer and a fluid and optionally an active agent, onto the medical device after the increasing step; and
- c) maintaining the application temperature of the medical device at a temperature greater than ambient temperature during the applying step.

✓ 2. (previously amended) The method of Claim 1, wherein the medical device is a stent.

✓ 3. (Withdrawn)

✓ 4. (Withdrawn)

✓ 5. (previously amended) A method of coating a medical device, comprising the acts of:

- a) applying a composition including a fluid onto a medical device;
- b) directing a gas with a temperature greater than ambient temperature onto the medical device subsequent to the application of the composition to induce evaporation of at least a portion of the fluid from the composition; and

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c) repeating the acts of applying and directing to form multiple layers of the composition on the medical device.

6. (Withdrawn)

7. (Withdrawn)

✓ 8. (previously amended) The method of Claim 37, wherein the act of applying comprises spraying the composition onto the stent.

CJ ✓ 9. (Original) The method of Claim 8, wherein the act of spraying is performed at a flow rate of about 0.01 mg/sec to about 1 mg/sec.

✓ 10. (Original) The method of Claim 8, wherein the act of spraying is performed for a duration of about 0.5 seconds to about 5 seconds.

✓ 11. (Original) The method of Claim 5, wherein the temperature of the gas is about 25°C to about 200°C.

✓ 12. (Original) The method of Claim 5, wherein the act of directing is performed for a duration of about 1 second to about 100 seconds.

✓ 13. (previously amended) The method of Claim 5, wherein the act of directing is performed at a flow rate of about 0.01 m³/second to about 1.42 m³/second.

✓ 14. (Original) The method of Claim 5, wherein the composition includes a polymer dissolved in the fluid and optionally an active agent.

✓ 15. (Original) The method of Claim 14, wherein the active agent is actinomycin D, paclitaxel, docetaxel, or rapamycin.

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6. (currently amended) The method of Claim 5, wherein the composition additionally includes a radio-opaque element or a radioactive isotope.

7. (previously amended) The method of Claim 5, additionally comprising rotating the stent about the longitudinal axis of the stent.

8. (Previously amended) The method of Claim 5, additionally comprising moving the stent in a linear direction along the longitudinal axis of the stent.

19. (Withdrawn)

20. (Previously amended) The method of Claim 5, wherein the stent is at least partially expanded during the acts of applying and directing.

21. (Previously amended) The method of Claim 5, additionally comprising heating the stent prior to the act of applying the composition, wherein the temperature of the stent is increased to a temperature greater than ambient temperature and is maintained at a temperature greater than ambient temperature as the composition is applied to the stent.

22. (previously amended) A method of coating a medical device, comprising the acts of:

- a) spraying onto a medical device a composition including a solvent, a polymer dissolved in the solvent, and optionally an active agent;
- b) applying a gas with a temperature greater than ambient temperature onto the medical device for a duration of about 1 second to about 100 seconds to remove at least a portion of the solvent from the composition; and
- c) repeating the acts of spraying and applying to form multiple layers of the composition.

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23. (Withdrawn)

✓ 24. (previously added) The method of Claim 1, wherein the temperature that is maintained during application is about 35°C to about 80°C.

✓ 25. (previously added) The method of Claim 1, wherein the coating substance comprises an ethylene vinyl alcohol copolymer or poly-n-butyl methacrylate.

✓ 26. (Previously added) The method of Claim 5, wherein the act of repeating is performed 2 to 41 times.

✓ 27. (Previously added) The method of Claim 5, additionally including waiting for a period of about 0.1 seconds to about 5 seconds after application of the composition before directing the gas onto the stent.

✓ 28. (Previously added) The method of Claim 5, wherein the composition comprises a polymer selected from the group consisting of an ethylene vinyl alcohol copolymer and poly-n-butyl methacrylate.

✓ 29. (Previously added) The method of Claim 5, wherein during the act of applying about 1 microgram of composition per cm^2 of stent surface to about 50 micrograms of composition per cm^2 of stent surface is applied.

✓ 30. (Previously added) The method of Claim 21, wherein the fluid is selected from the group consisting of dimethylsulfoxide, dimethylformamide, and dimethylacetamide and combinations thereof.

✓ 31. (Previously added) The method of Claim 21, wherein the temperature that is maintained during application is 35°C to 80°C.

✓ 32. (Previously added) The method of Claim 22, wherein the polymer comprises an ethylene vinyl alcohol copolymer or poly-n-butyl methacrylate.

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✓ 33. (Previously added) The method of Claim 22, additionally including waiting for a period of about 0.1 seconds to about 5 seconds after spraying of the composition before applying the gas onto the stent.

✓ 34. (Previously added) The method of Claim 22, wherein the solvent is selected from the group consisting of cyclohexanone, ethyl acetate, chloroform and methanol.

✓ 35. (Currently amended) A method of coating a stent, comprising the steps of:

a) adjusting the temperature of the stent to an application temperature other than below ambient temperature;

b) applying a coating substance, wherein the coating substance includes a polymer and a fluid and optionally an active agent, onto the stent after the adjusting step; and

c) maintaining the application temperature of the stent at a temperature other than ambient temperature during the applying step.

✓ 36. (Previously added) The method of Claim 2 wherein the stent is metallic.

✓ 37. (Previously added) The method of Claim 5 wherein the medical device is a stent.

✓ 38. (Previously added) The method of Claim 37 wherein the stent is metallic.

✓ 39. (Previously added) The method of Claim 22 wherein the medical device is a stent.

✓ 40. (Previously added) The method of Claim 39 wherein the stent is metallic.

✓ 41. (Previously added) A method of coating a medical device, comprising the steps of:

a) increasing the temperature of the medical device to a temperature greater than ambient temperature;

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- b) applying a coating substance onto the medical device after the increasing step wherein the coating substance includes a polymer dissolved in a fluid and optionally an active agent and wherein applying comprises spraying the composition onto the medical device; and
- c) maintaining the temperature of the medical device at a temperature greater than ambient temperature during the applying step.

✓ 42. (Previously added) A method of coating a stent comprising the steps of:

- a) increasing the temperature of the stent to a temperature greater than ambient temperature;
- b) applying a coating substance onto the stent after the increasing step wherein the coating substance includes a polymer dissolved in a fluid and optionally an active agent and wherein applying comprises spraying the composition onto the stent; and
- c) maintaining the temperature of the stent at a temperature greater than ambient temperature during the applying step.

✓ 43. (Previously added) A method of coating a medical device, comprising the steps of:

- a) increasing the temperature of the medical device to a temperature greater than ambient temperature;
- b) applying a coating substance including a fluid onto the medical device after the increasing step;
- c) directing a gas with a temperature greater than ambient temperature onto the medical device subsequent to the application of the composition to induce evaporation of at least a portion of the fluid from the composition; and
- d) maintaining the temperature of the medical device at a temperature greater than ambient temperature during the applying step; and

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e) repeating the acts of applying and directing to form multiple layers of the composition on the medical device.

14.

(Previously added) A method of coating a medical device, comprising the steps of:

a) increasing the temperature of the medical device to a temperature greater than ambient temperature;

b) spraying a coating substance onto the medical device after the increasing step wherein the composition includes a solvent, a polymer dissolved in the solvent, and optionally an active agent; and

c) applying a gas with a temperature greater than ambient temperature onto the medical device for a duration of about 1 second to about 100 seconds to remove at least a portion of the solvent from the composition

d) maintaining the temperature of the medical device at a temperature greater than ambient temperature during the applying step; and

e) repeating the acts of spraying and applying to form multiple layers of the composition.